

## PATENT ABSTRACTS OF JAPAN

(11) Publication number : 10-045738

(43) Date of publication of application : 17.02.1998

(51) Int.Cl. C07D303/36  
 AGK 31/355  
 C1P 17/02  
 //C1P 17/02  
 C12R 1:01 )

(21) Application number : 08-199249 (71) Applicant : MICROBIAL CHEM RES FOUND

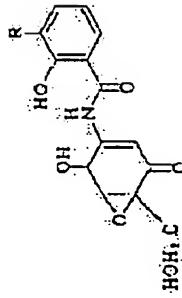
(22) Date of filing : 29.07.1998 (72) Inventor : TSUCHIDA TOSHIRO

NAKAMURA HIKARI  
 INUMA HIRONOBU  
 SAWA TSUTOMU  
 OSANAWA HIROSHI  
 HAMADA MASA  
 HIRANO SHINICHI  
 MATSUMOTO NAOKI  
 ISHIZUKA MASAAKI

## (54) ANTIBIOTIC SUBSTANCE EPOXYQUINOMICIN C AND D, ITS PRODUCTION AND ANTIRHEUMATIC AGENT

(57) Abstract:  
 PROBLEM TO BE SOLVED: To obtain a new compound having a new molecular skeleton and exhibiting antirheumatic activity.

SOLUTION: The antibiotic substances epoxyquinomicin C and D are expressed by the formula (R is H for epoxyquinomicin C and Cl for epoxyquinomicin D). The epoxyquinomicin C has the following physical and chemical properties: appearance and nature, white powder having weakly acidic nature; melting point, 168-172° C (decomposition); specific rotation, [α] D25=+128° (c=1.0, methanol); etc. The compound of the formula can be produced by culturing a microbial strain capable of producing epoxyquinomicin C and D such as *Amycolatopsis* sp. MK299-95F4 in a nutrient medium at pH6.5-7.5 under aerobic condition.



LEGAL STATUS  
 [Date of request for examination]  
 [Date of sending the examiner's decision of rejection]  
 [Kind of final disposal of application other than

<http://www19.ipdl.nicpi.go.jp/PA1/result/detail/main/wAAAzlaW4HDA410045738P1...> 17/07/11

<http://www19.ipdl.nicpi.go.jp/PA1/result/detail/main/wAAAzlaW4HDA410045738P1...> 17/07/11

BEST AVAILABLE COPY

quinomycin A, and showing a hydrogen atom by epoxy kuno mycin B among a formula), and which is a compound and epoxy kuno mycin B, or these salts as an active principle.

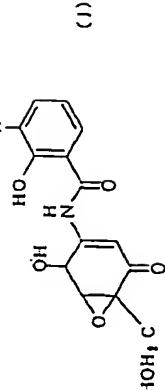
JFO and NCIP are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.  
2. \*\*\* shows the word which cannot be translated.  
3. In the drawings, any words are not translated.

## CLAIMS

### Claim(s)

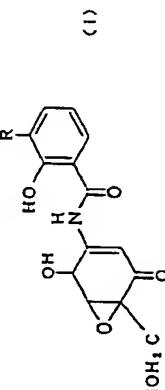
**Claim 1]** The following general formula (I)



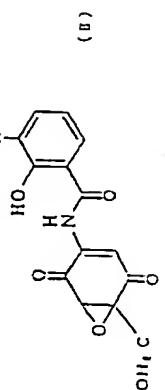
They are the antibiotic **epoxy kino mycin C** which is expressed with (R showing a hydrogen atom) **epoxy kino mycin C**, and showing a chlorine atom by **epoxy kino mycin D** among a formula) and which is a compound and **epoxy kino mycin D** or those salts.

**Claim 2]** the manufacturing method of the antibiotic enoxy king mucin C which culturates *obt*

production bacillus of the epoxy kino mycin C and D according to claim 1 belonging to the *Actinomyces* group to a nutrition culture medium, and is characterized by extracting epoxy kino mycin C and (or) D from the culture, and (or) epoxy kino mycin D.



They are the antibiotic epoxy kino mycin C which is expressed with (R showing a hydrogen atom) epoxy kino mycin C, and showing a chlorine atom by epoxy kino mycin D among a formula) and which is a compound epoxy kino mycin D and the following.



is the rheumatism agent characterized by containing at least one compound chosen from the antibiotic epoxy quinonycin A which is expressed with (R showing a chlorine atom by epoxy